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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,818	08/06/2001	Shoji Hizatate	330-238	7888

7590

09/02/2003

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EXAMINER

HESS, BRUCE H

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

ASZ

# Office Action Summary

Application No.  
09/890,818

Applicant(s)  
Hizata et al.

Examiner  
Bruce Hess

Group Art Unit  
1774

--The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address--

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 9-13-01 (Amendment)
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 49-87 is/are pending in the application.
- Of the above claim(s) 60-66 and 84-87 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 49-59 and 67-83 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

1. This action is supplemental to the last Office action which crossed in the mail with applicants' amendment of September 13, 2001. Applicants' period of response is restarted with the mailing of this action.
2. Claim 49 is rejected under 35 USC 102(b) as being anticipated by any of the patents to Usami et al. (USP 4,644,376), Nakamura et al. (JP 01-141786) or Nakamura et al. (JP 02-145560).
3. Claims 49, 56-58, 77-79 and 81-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the patents to Usami et al., Nakamura et al. '786 or Nakamura et al. '560.

These patents all teach heat-sensitive recording material which can employ N-(2-hydroxyphenyl)-p-toluene sulfonamide as a color developer (see column 7, lines 9 and 10). The Nakamura et al. patents additionally suggest N-(4-hydroxyphenyl)benzenesulfonamide as a color developer. Use of a mixture of sulfonamide color developers which perform the same function would have been obvious to one of ordinary skill in this art in the absence of unexpected. In re Crockett, 126 USPQ 186. USP of the position isomer [i.e., N-(4-hydroxyphenyl) -p-toluenesulfonamide] of Usami et al.'s N-(2-hydroxyphenyl)-p-toluenesulfonamide would have been obvious expedient to one of ordinary skill in this art. In re Mehta, 146 USPQ 284. Finally, the experimental modification of the prior art in order to ascertain optimum operating conditions (e.g., determine

the composition of the paper substrate) fails to render applicants claims patentable in the absence of unexpected results.

4. Claims 50-55,59,67-76 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of the patents to Usami et al. or Nakamura et al. in view of applicants' statement of the prior art.

The primary references apply as per the preceding paragraph. Applicants acknowledge in their specification that pigment/adhesive undercoatings, UV stabilizers, phosphoric esters and aromatic isocyanates are conventional materials employed in heat-sensitive recording material. Use of these conventional materials for their concomitant function in the heat-sensitive recording material of any of the primary references would have been obvious to one of ordinary skill in this art in the absence of unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce Hess whose telephone number is (703) 308-2402. The examiner can normally be reached on Monday to Friday 9 Am to 5 PM.

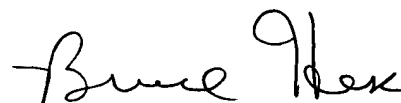
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7115 for regular communications and (703) 308-7115 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in cursive script, reading "Bruce Hess".

B. Hess/mn  
August 20, 2003

BRUCE H. HESS  
PRIMARY EXAMINER